



**孕龍科技股份有限公司**  
ZeroPlus Technology Co., Ltd.

# SPECIFICATION

**MODEL: B09018-LAP-LPT-M**

**PART NO:** \_\_\_\_\_

**VERSION:** V1.00

| Approver |    | Check | Design |
|----------|----|-------|--------|
| GM       | PM |       |        |
|          |    |       |        |

| Customer Confirm |
|------------------|
|                  |

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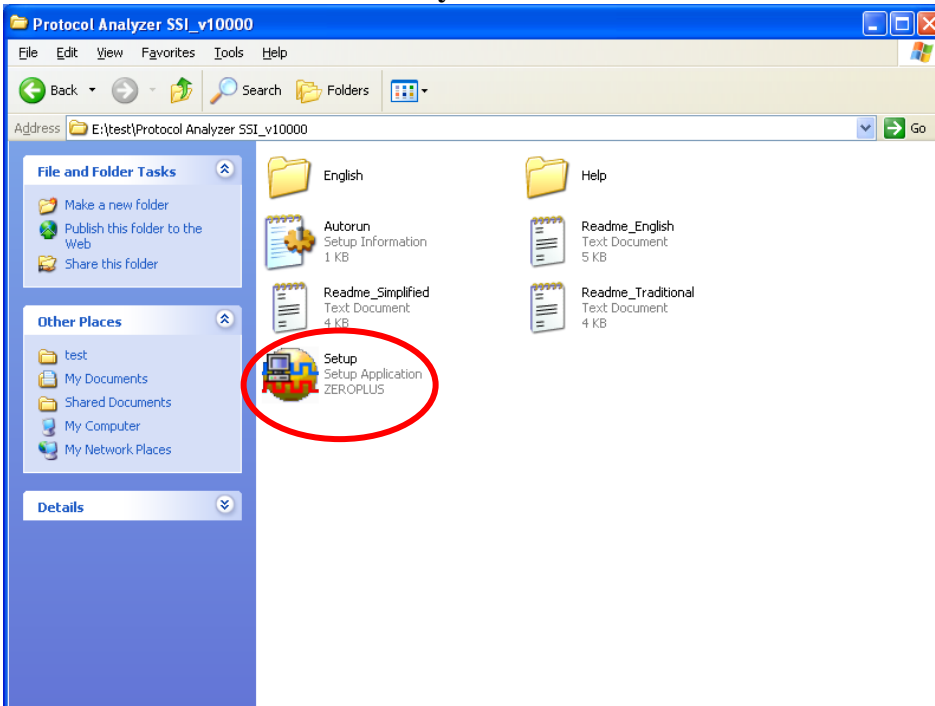


# 1 Software Installation

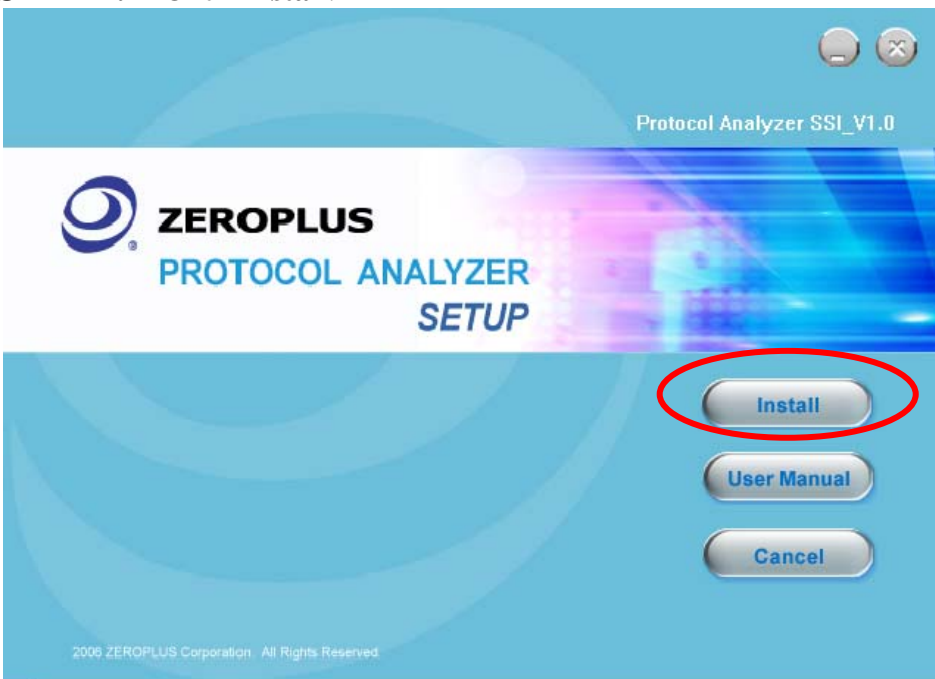
Please install the software as the following steps:

- ※ Remark: 1. The installation steps for all protocol analyzers are the same; you can complete the installation by following procedures. Following is an example on how to install protocol analyzer SSI.
- ※ Remark: 2. We won't have additional notice for you, when there is any modification of the module specification. If there is some unconformity caused by the module version upgrade, users should take the module software as the standard.

## STEP 1. Install Protocol Analyzer Module.

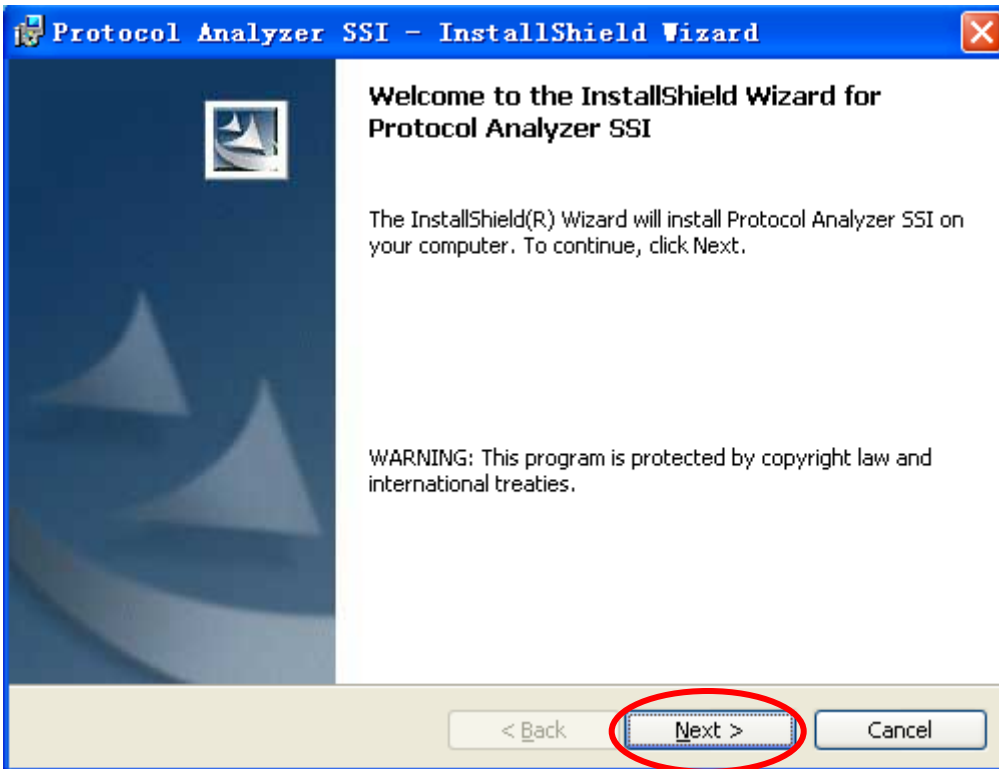


## STEP 2. Click Install.

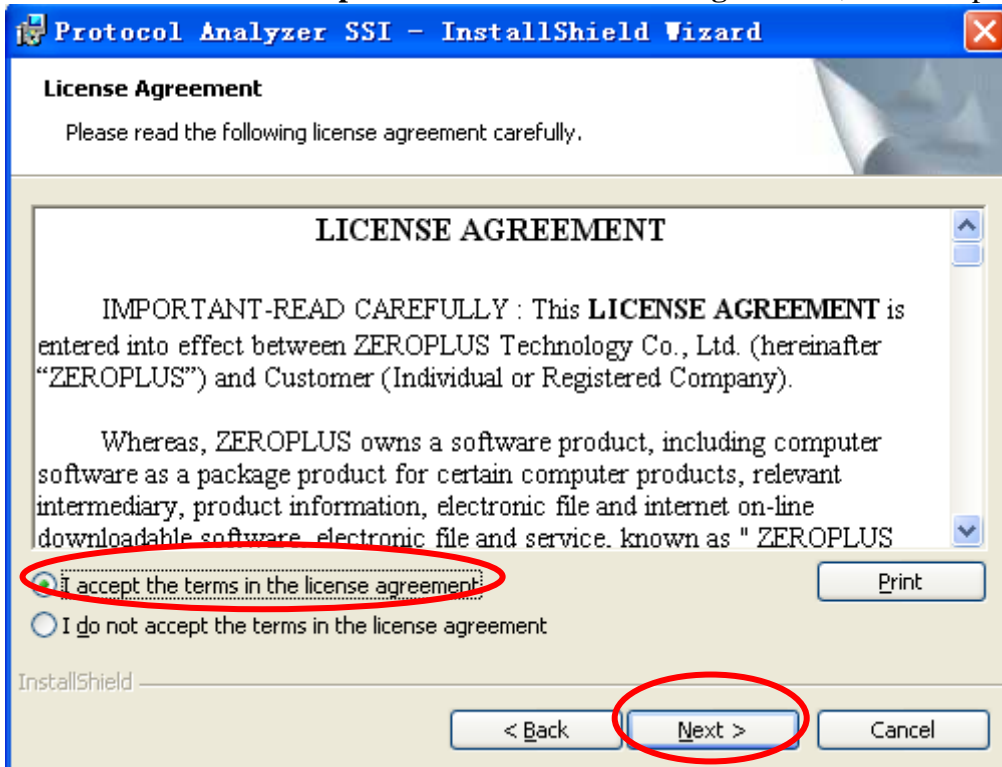




**STEP 3.** Click Next.

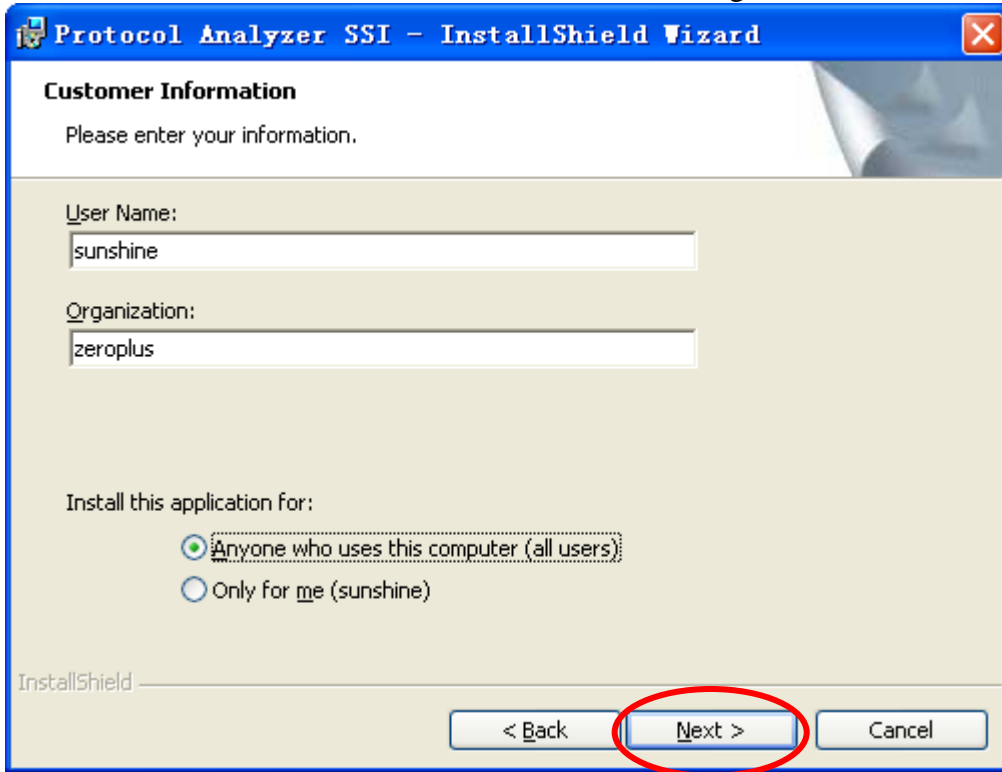


**STEP 4.** Select **I accept the terms in the license agreement**, and then press Next.

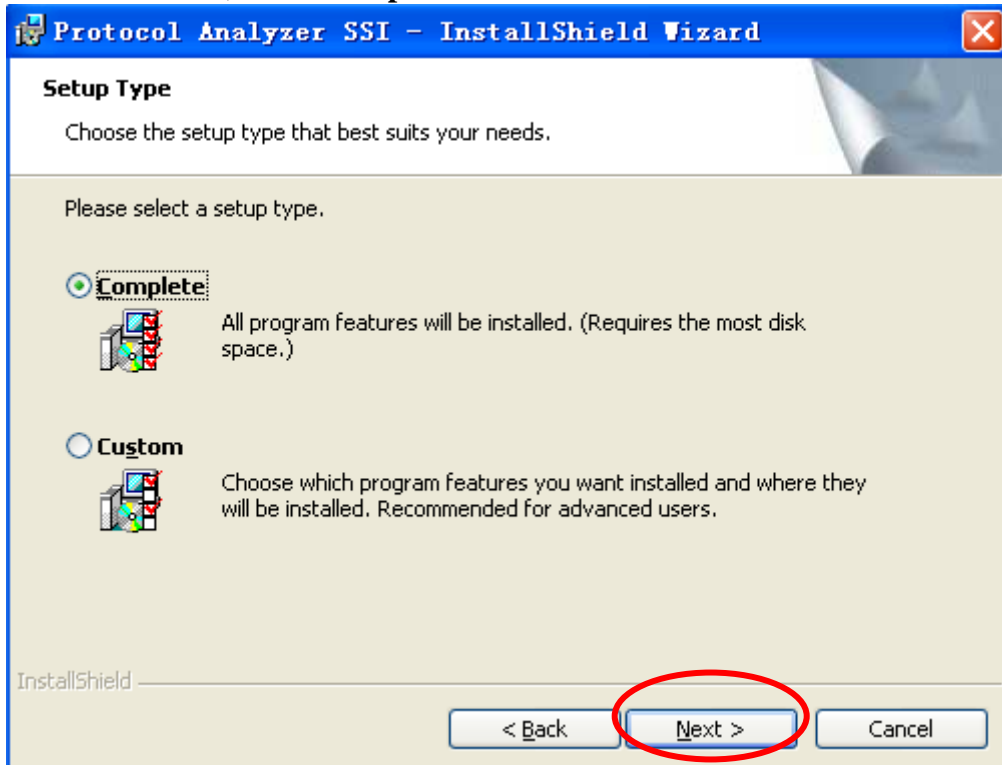




**STEP 5.** Fill in users' information in the below dialog box and click **Next**.

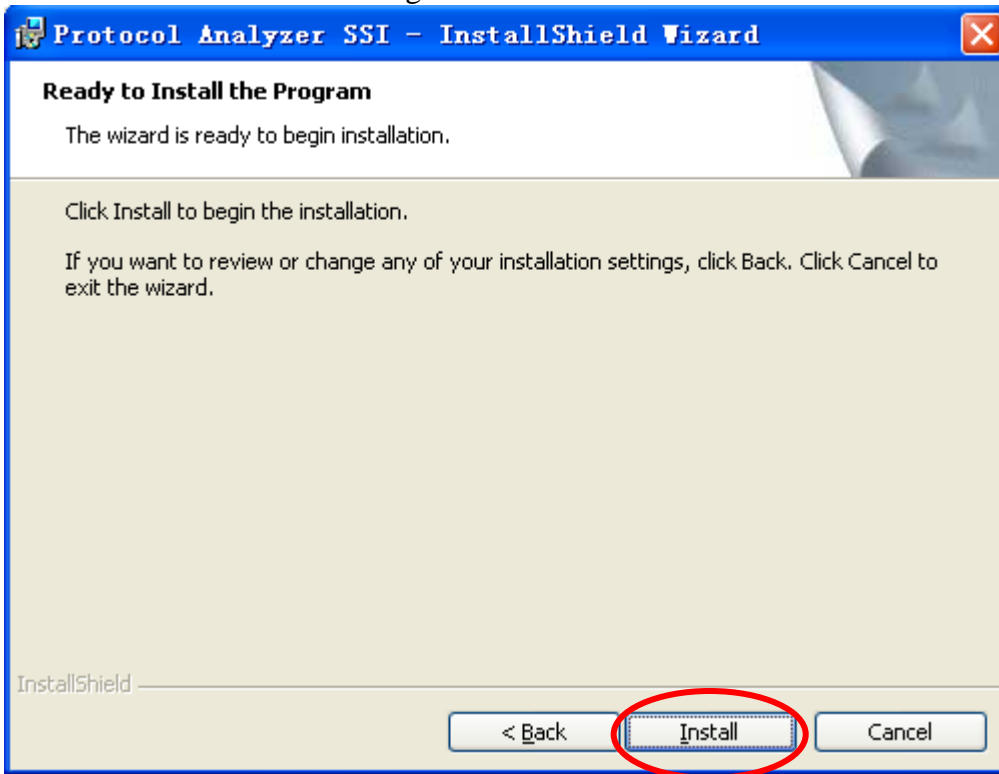


**STEP 6.** First, select **Complete** and then click **Next**.

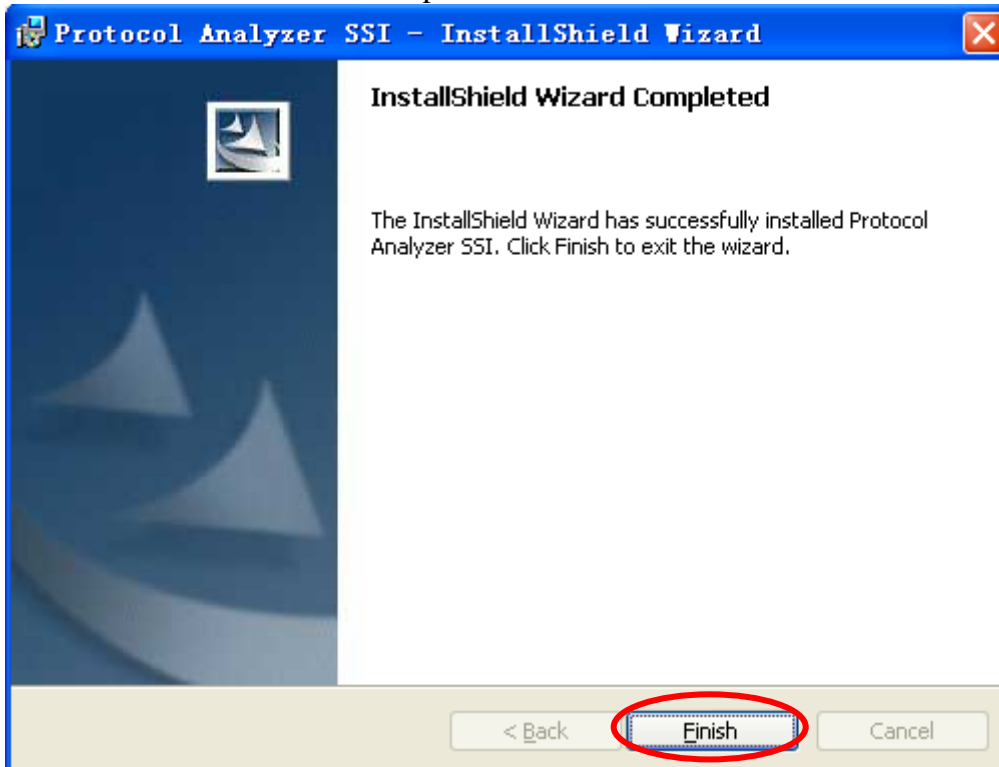




**STEP 7.** Click **Install** to begin the installation.



**STEP 8.** Click **Finish** to complete the installation.



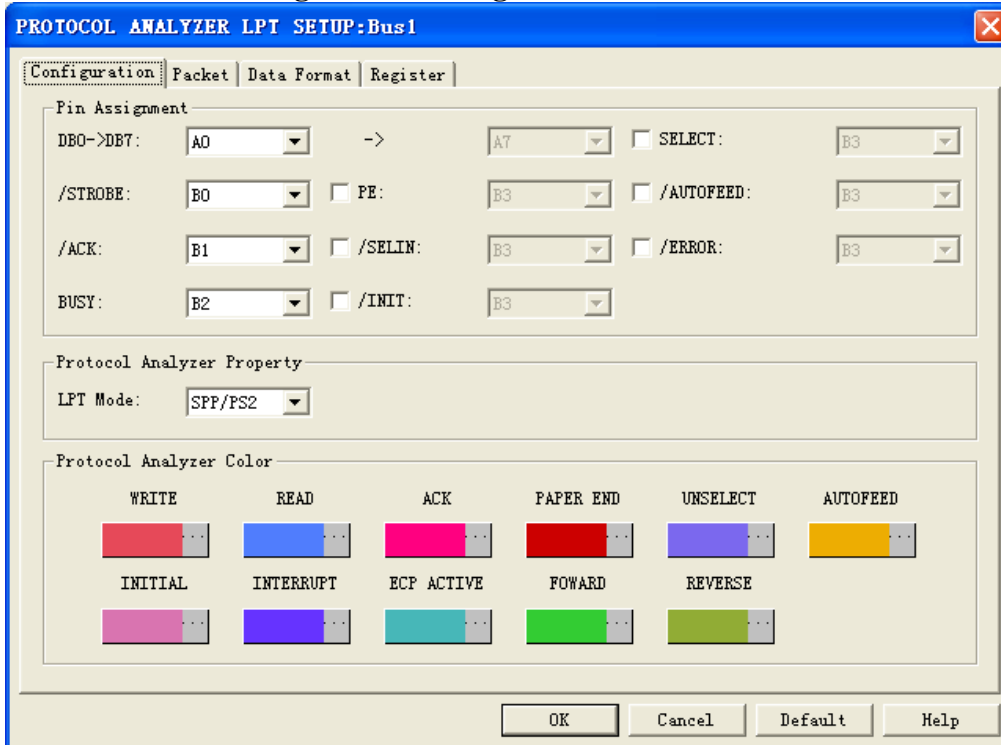


## 2 User Interface

In the configuration, please refer to the below images to select options of setting LPT module.

### LPT Configuration Dialog Box

#### SPP/PS2 Mode Configuration Dialog Box



**Pin Assignment:** There are three different modes for LPT, which correspond with three different configuration interfaces respectively.

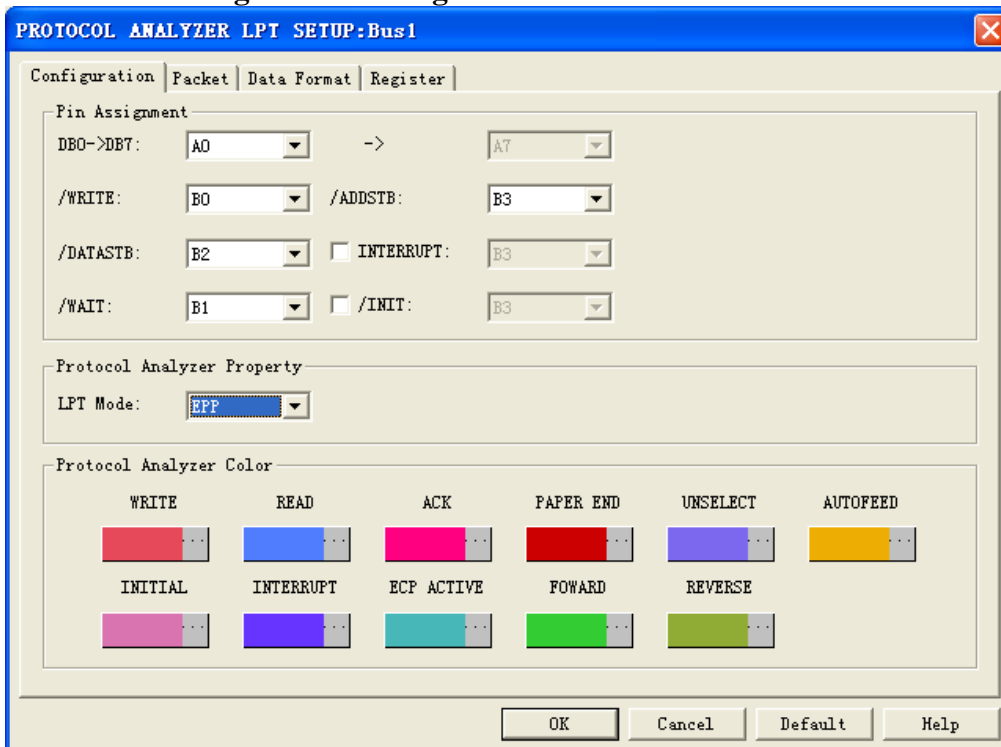
**SPP/PS2 Mode:** There are 17 Signal Lines for the SPP Mode in total, which include 8 Data Lines, 5 Status Lines and 4 Control Lines. DB0->DB7 are the Data ports. When the BUSY line is in the Low Level, it indicates “BUSY”. When transmitting data, first the /ACK line is in the Low Level then in the High Level. When there is not a piece of paper for the printer, PE line is in the High Level. When the printer is effective, the SELECT line is the High Level. When there is an error for the printer, the /ERROR line is in the Low Level. The /SELIN line is usually in the High Level in the SPP Mode; when it is in the Low Level, it indicates the selection of input. When the /INIT line is in the Low Level, the printer starts initializing. When the /AUTOFEED line is in the Low Level, it indicates that the printer formfeeds automatically. The /STROBE line represents the Strobe Signal. Thereinto, the Read/ Write of the decoding data is mainly to use the DB0->DB7, /STROBE, BUSY, /ACK channels. The other channels are selectable decoding lines.

**Protocol Analyzer Property:** There are three modes for LPT, which are the SPP/PS2 Mode, EPP Mode and ECP Mode.

**Protocol Analyzer Color:** The Protocol Analyzer Color can be varied by users.



## EPP Mode Configuration Dialog Box



**Pin Assignment:** There are three different modes for LPT, which correspond with three different configuration interfaces respectively.

**EPP Mode:** It needs 12 channels for EPP decoding, which are the DB0->DB7, /WRITE, /WAIT, /DATASTB and /ADDSTB. The INTERRUPT and the /INIT are selectable decoding lines.

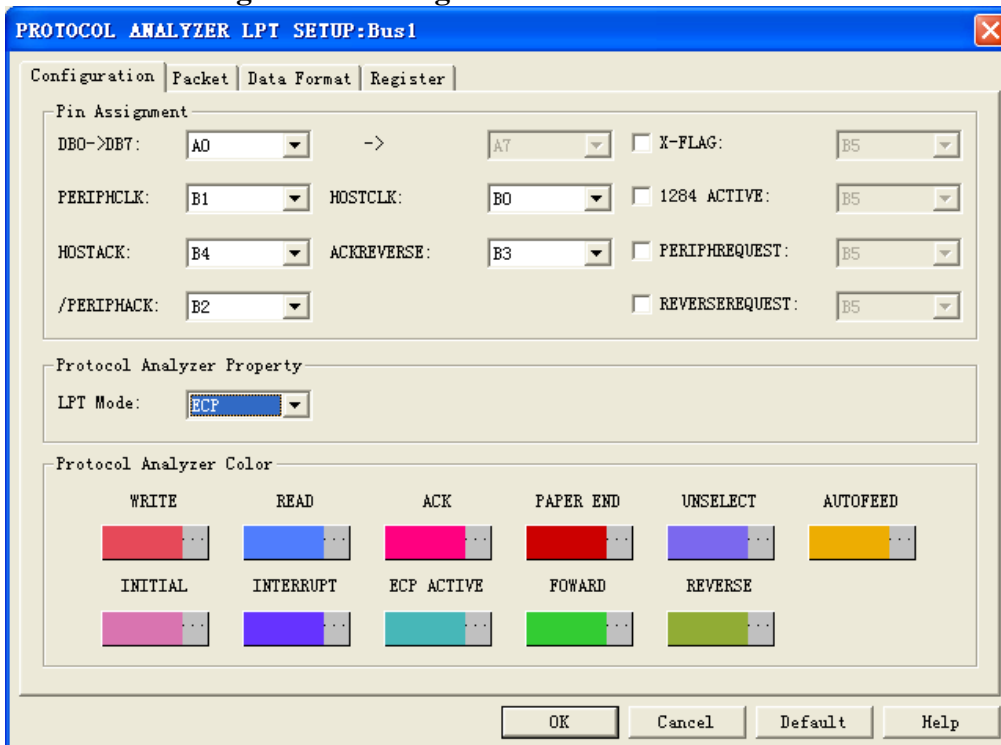
**Protocol Analyzer Property:** There are three modes for LPT, which are the SPP/PS2 Mode, EPP Mode and ECP Mode.

**Protocol Analyzer Color:** The **Protocol Analyzer Color** can be varied by users.





## ECP Mode Configuration Dialog Box



**Pin Assignment:** There are three different modes for LPT, which correspond with three different configuration interfaces respectively.

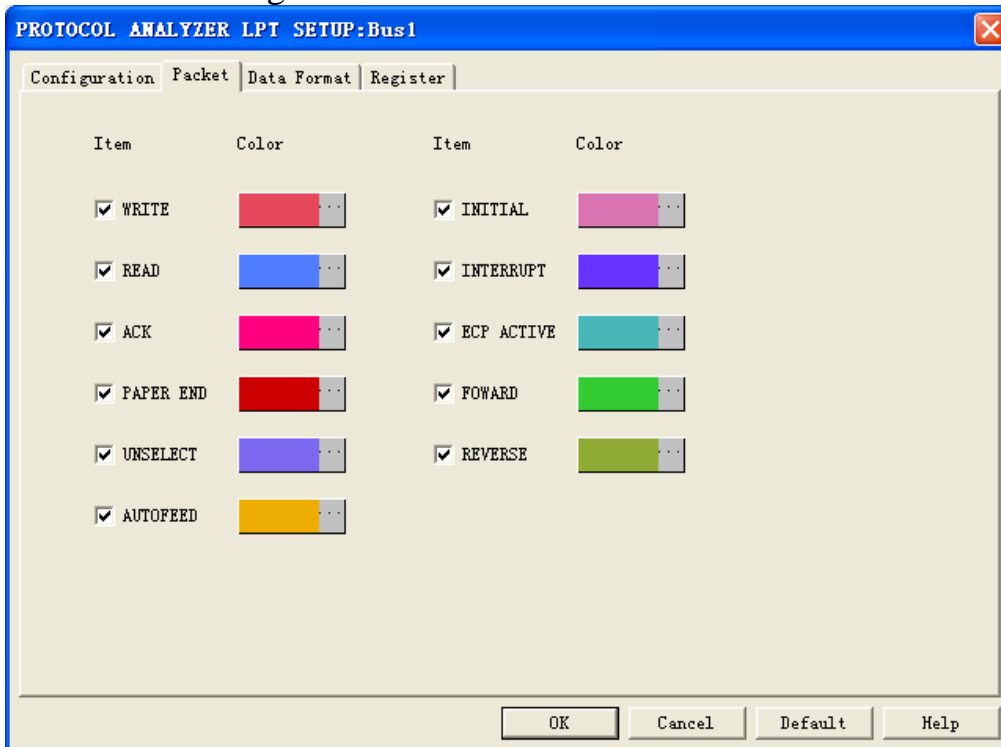
**ECP Mode:** There are 8 Data Lines and 9 Control Lines, thereinto it needs 13 channels for decoding, which are the DB0->DB7, HOSTCLK, PERIPHCLK, /PERIPHACK, ACKREVERSE and HOSTACK. The X-FLAG, 1284 ACTIVE, PERIPHREQUEST, REVERSEREQUEST are selectable decoding lines.

**Protocol Analyzer Property:** There are three modes for LPT, which are the SPP/PS2 Mode, EPP Mode and ECP Mode.

**Protocol Analyzer Color:** The Protocol Analyzer Color can be varied by users.

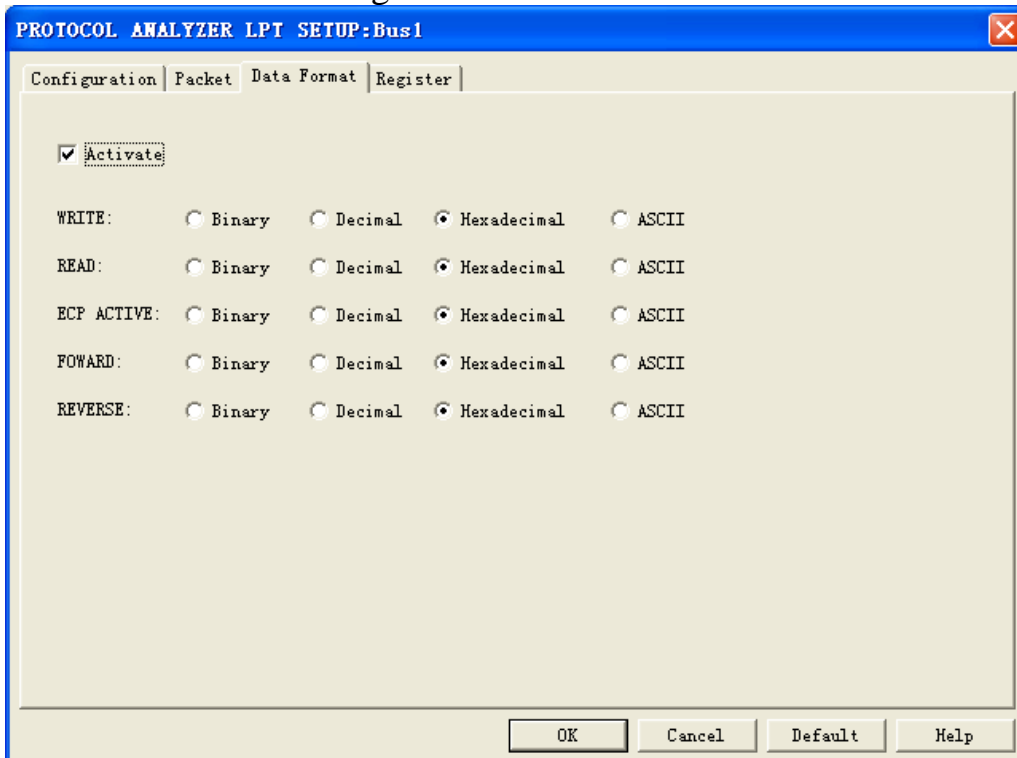


## LPT Packet Dialog Box



In the packet part, users can set the items and colors as users' requirements.

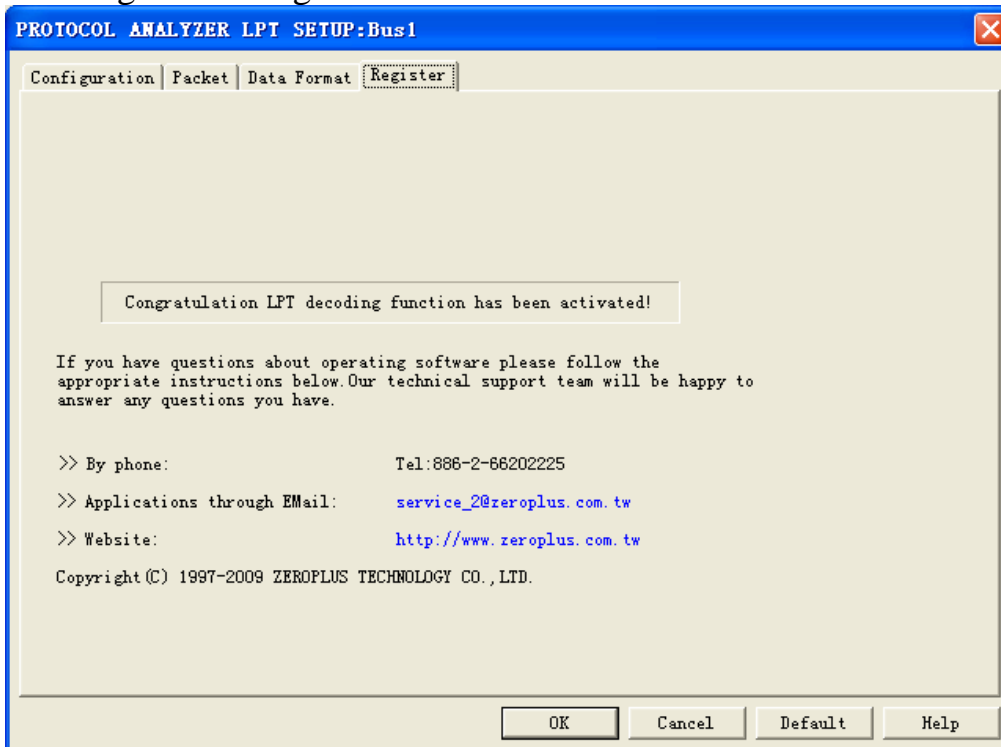
## LPT Data Format Dialog Box



Users can set the Data Format of the WRITE, READ, ECP ACTIVE, FOWARD and REVERSE as their requirements. When selecting the option, Activate, the data formats are decided by the settings in the Module; when not selecting the option, Activate, the data formats are decided by the settings in the main program.



## LPT Register Dialog Box

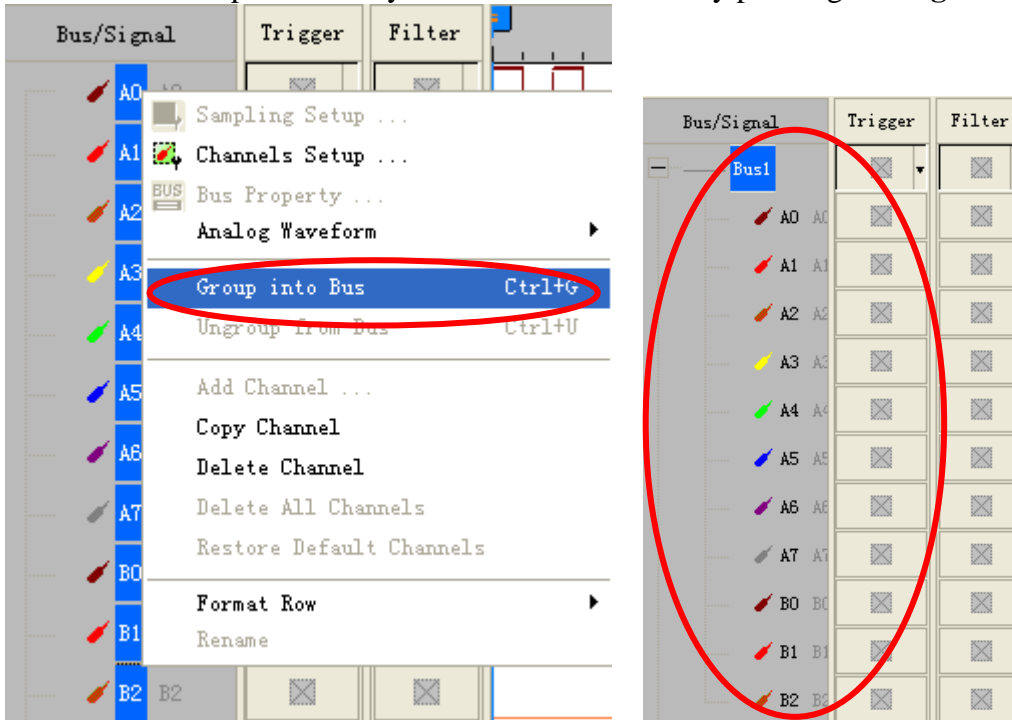


There is written ZeroPlus company information. If you have any questions about software operations, you can contact ZeroPlus by Telephone or Email.

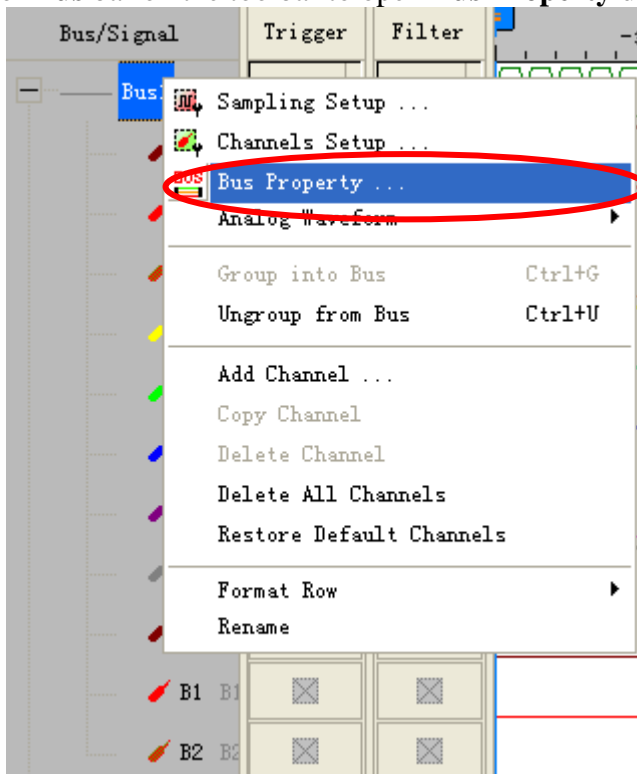


### 3 Operating Instructions

**STEP 1.** Group the unanalyzed channel into **Bus1** by pressing the **Right Key** on the mouse.

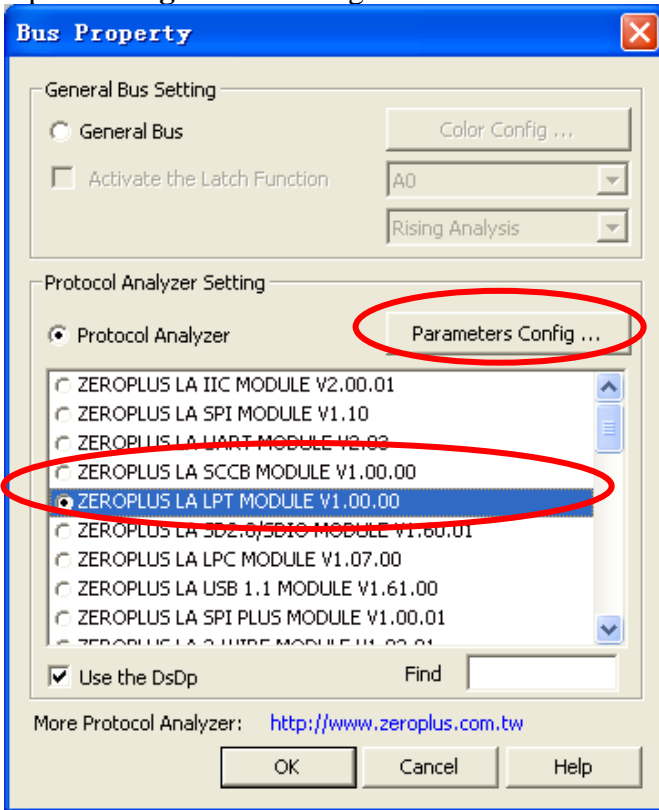


**STEP 2.** Select **Bus1**, and press **Right Key** on the mouse to list the menu, then press **Bus Property** or **Bus** bar on the toolbar to open **Bus Property** dialog box.

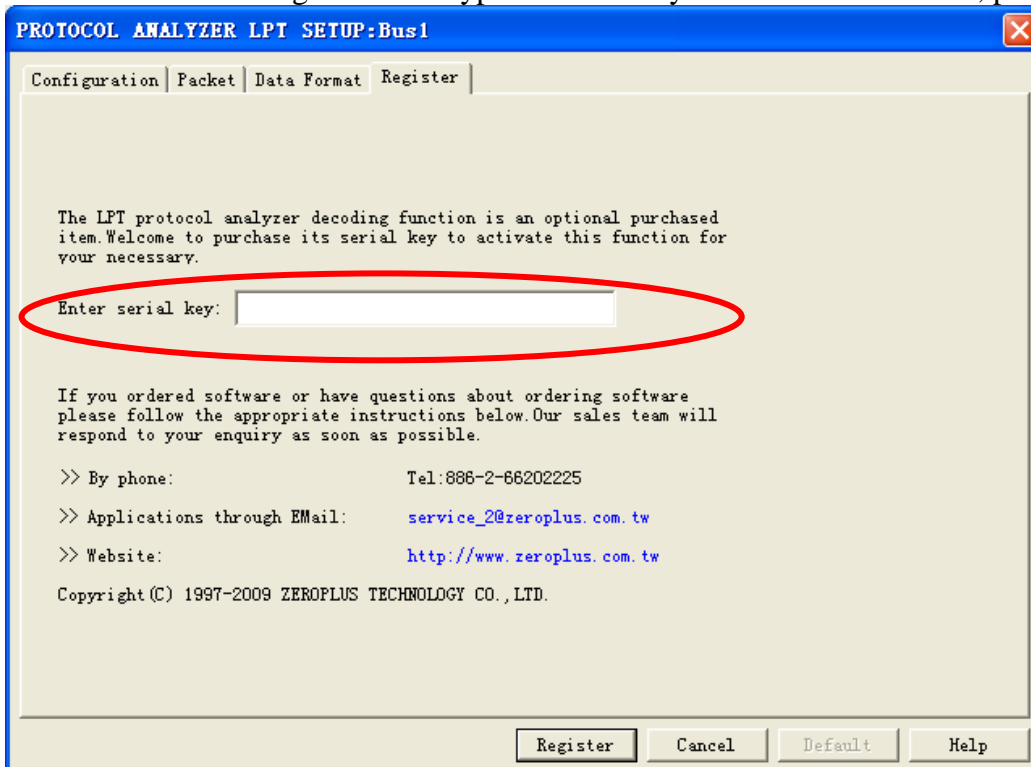




**STEP 3.** For Protocol Analyzer LPT Parameters Configuration, select Protocol Analyzer, and then choose **ZEROPLUS LA LPT MODULE V1.00.00**. Next click **Parameters Configuration** to open **Configuration** dialog box.

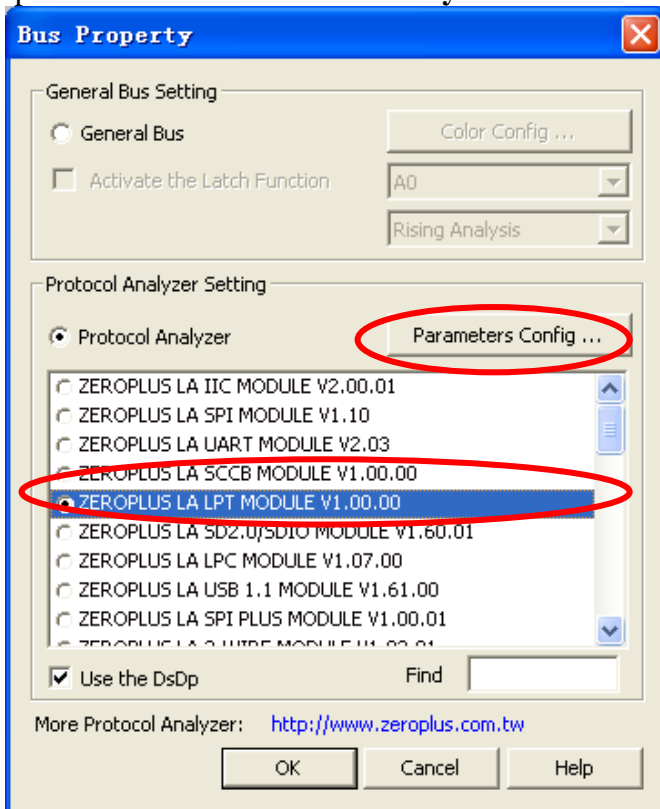


**STEP 4.** Press Register tab to type the serial key number of LPT. Then, press **Register**.

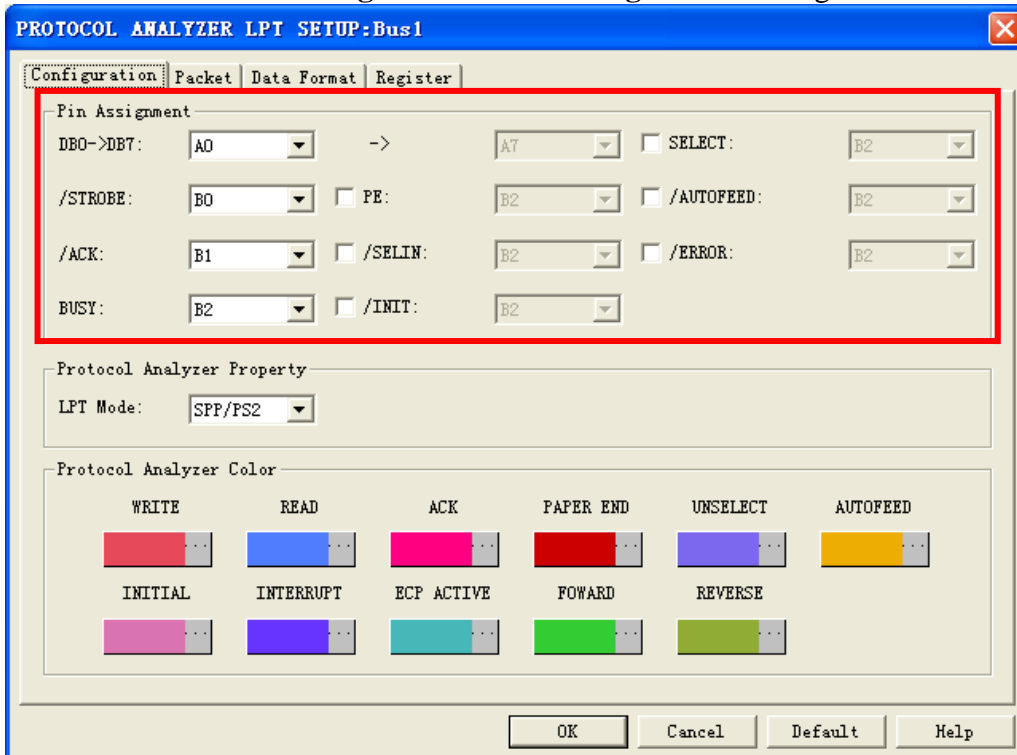




**STEP 5.** Click **Parameters Configuration** again, and open the Configuration dialog box to set the parameters for the **Protocol Analyzer LPT**.

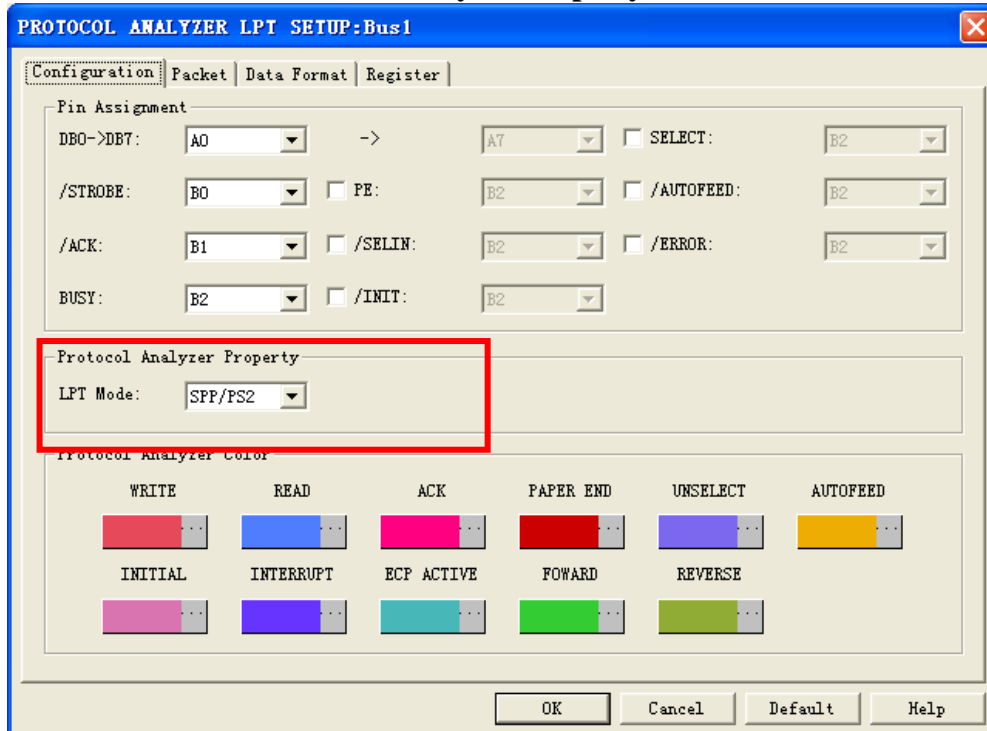


**STEP 6.** Set the **Pin Assignment** in the **Configuration** dialog box.

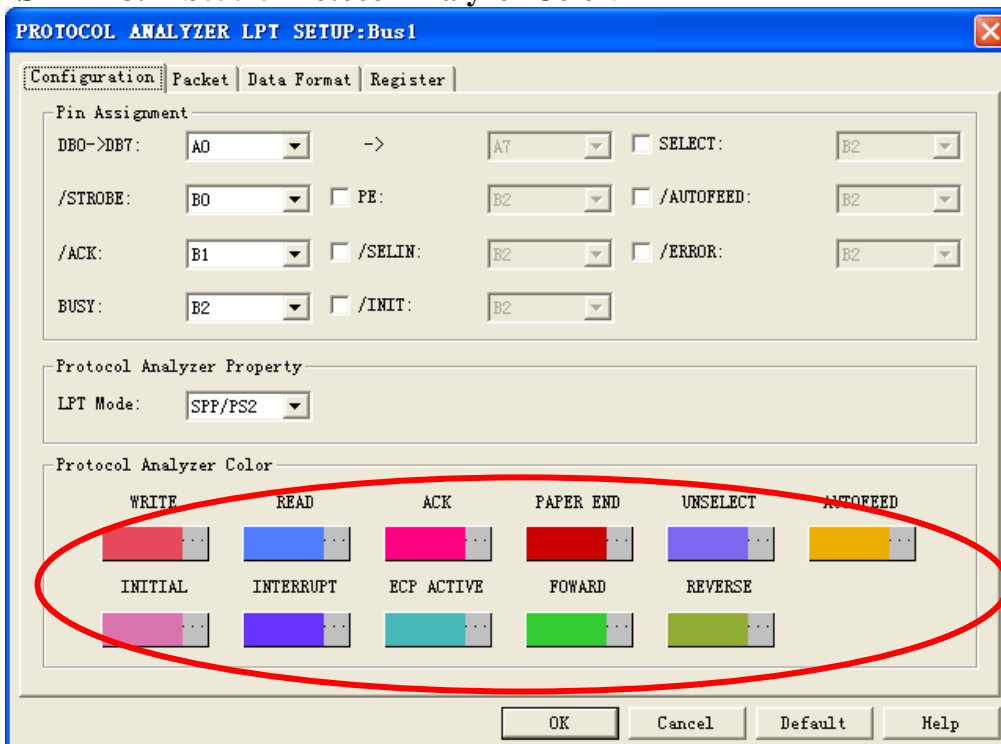




**STEP 7.** Set the Protocol Analyzer Property; the default is SPP/PS2 Mode.



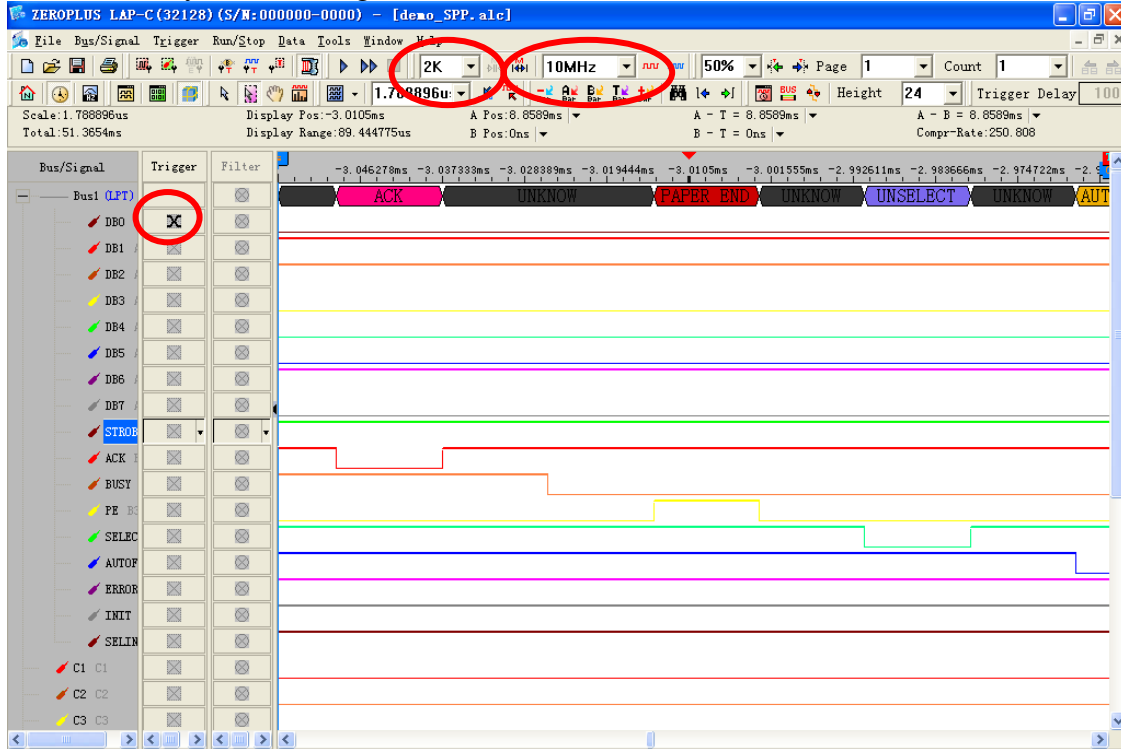
**STEP 8.** Set the Protocol Analyzer Color.





**STEP 9.** Following pictures show the completion of the protocol analyzer decoding and the packet list. The trigger condition is set as Either Edge; the memory depth is 2K; the sampling frequency is 10MHZ.

**Protocol Analyzer Decoding**



**Packet List**

